

Building a National Watersheds Data Base: Automation Pilot Project

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Pilot Project Objectives

- Refine concepts, data, methods, tools
- Compare quality/costs to manual approach
- Determine limits of method - where will it NOT work?
- Demonstrate additional benefits
- Estimate costs to complete NED-H and WBD nationwide

Automation Pilot Project

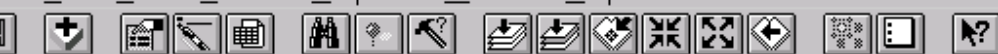
- Oklahoma subwatersheds: Selected CU's-- exercise and refine tools & data
- Kansas subwatersheds: Statistical comparison using a sampling of their boundaries--methods validation
- Explore NHD-NED-WBD linkages
- Selected CU's in areas of difficult terrain-- what will/won't work?

What functions do we want WBD to support?

- Hydrologic accounting/watershed address
- Basin characteristics (provide a framework)
- Networking info for all upstream areas

Upstream units tool

- Select all upstream polygons using attributes
- Delineating any basin is now two steps:
 - Delineate from site to nearest existing boundaries
 - Add any upstream polygons

Scale 1,583,217 -342,519.66
208,274.48

View1

Theme1.shp



Hydrog1020.shp



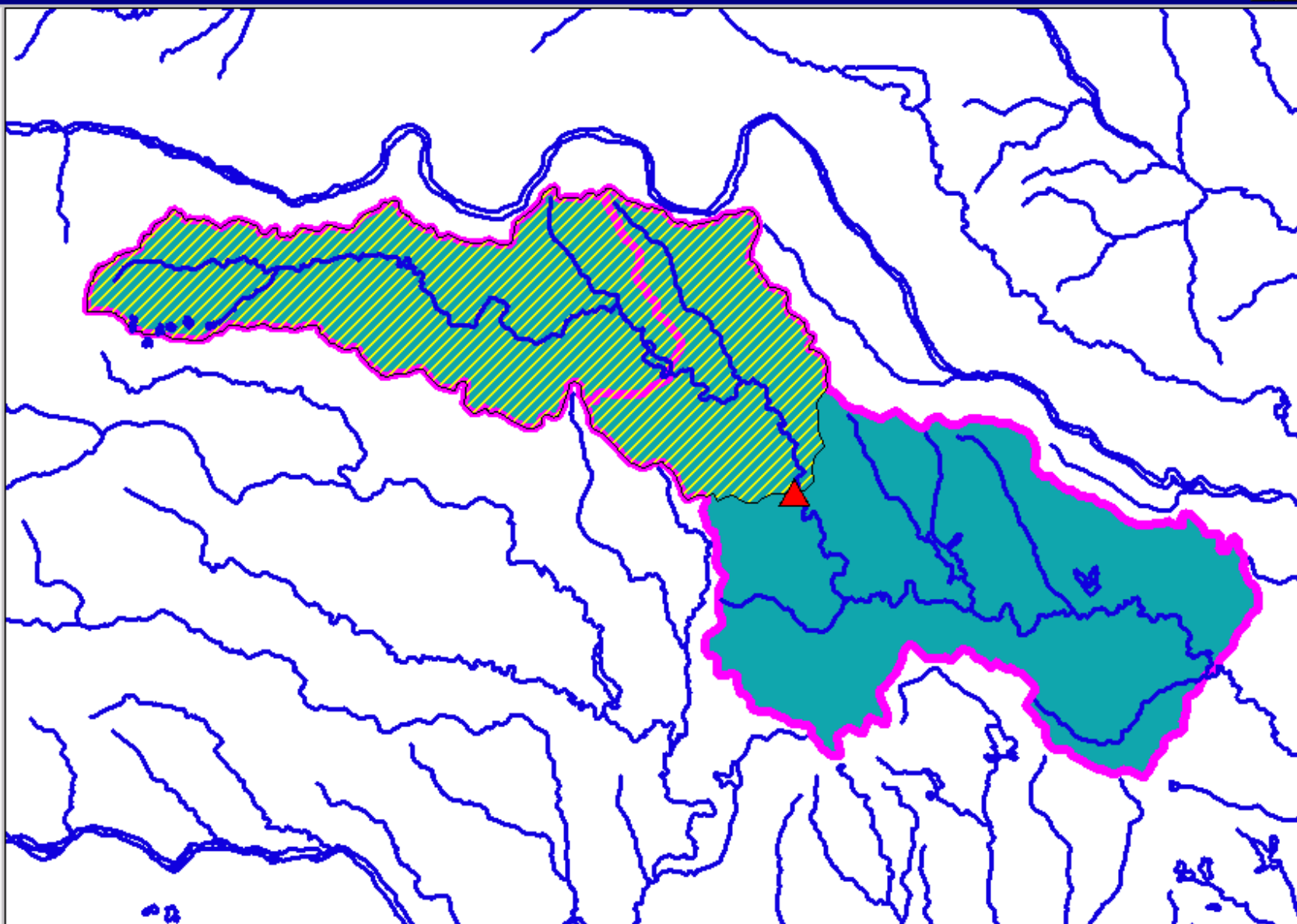
Disolv3.shp

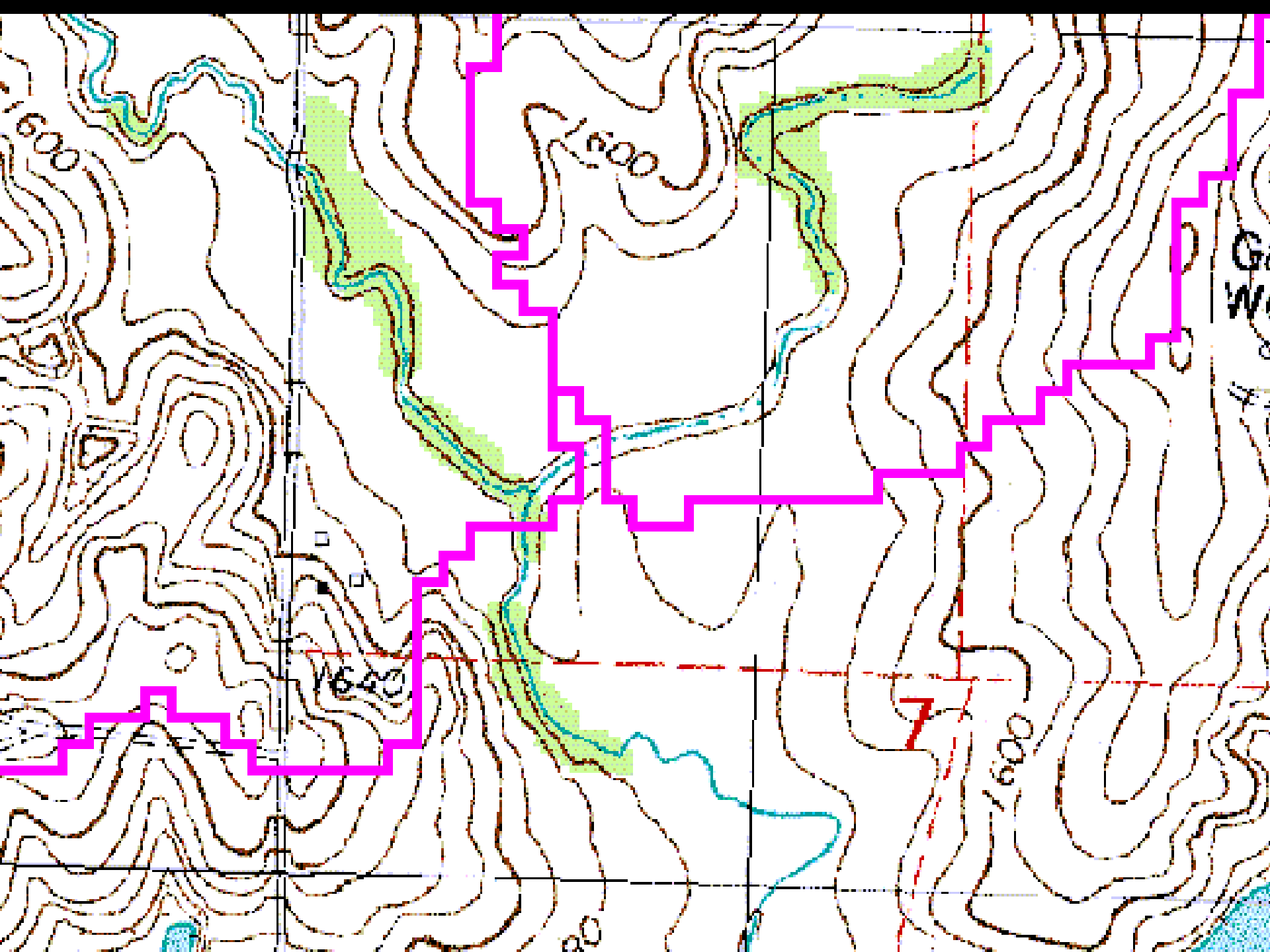


Theme2.shp



Disolv2.shp





Stage 2 of NED-H/WBD

Production Steps:

- 1. Select & merge reach catchments to create 5th and 6th level units *Geo-HMS*
- 2. Rough boundary cleanup (major busts only)
- 3. Code and name Hu's
- 4. Encode flow network attributes
- 5. Review by stakeholders
- 6. Detailed vector-edit of boundaries
- 7. Final stakeholder review

WBD Review Tools

- Interactive tools to aid reviewers
- Step through a data set one boundary at a time
- Keep track as boundaries are reviewed, check them off
- Record the review process
- Probably ArcView based, but early prototypes may be AML

Missing Pieces

- Finish pilot
- Estimate resources needed for national effort
- WBD data model - Arc 8/Geo-Objects
- Data access issues - NED and DRG
- Find resources and get started

DRAFT Attribute Scheme (PAT)

Item Name	Int. width	Type	Contents
HUC_8	8	C	
HUC_11	11	C	
HUC_14	14	C	
ACRES	4	B	
STATES	12	C	AR-MO-KS
NCONTRB_DA	4	B	(in acres)
DS_HUC	14	C	
NAME	80	C	(Lowest level)
FLAGS	80	C	

Draft Attribute Scheme (AAT)

Item Name	Int. width	Type	Contents
LINESOURCE	20	C	24KDIGITIZED, 24KDRG, 24KDEM, LOCALKNOW LEDGE, HUC250, ETC.
METADATA_ID	4	I	SEQ#, e.g. 0001, 0002...